Docket No.: CytRx/009 DIV2
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Vigh et al.

Application No.: 10/618,162

Confirmation No.: 4065

Filed: July 10, 2003

Art Unit: 1614

For: METHOD OF ENHANCING CELLULAR PRODUCTION OF MOLECULAR CHAPERON, HYDROXYLAMINE DERIVATIVES USEFUL FOR ENHANCING THE CHAPERON PRODUCTION AND THE PREPARATION THEREOF

Examiner: Shirley Gembeh

RESPONSE TO RESTRICTION REQUIREMENT

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This is a response to the restriction requirement set forth in the Office Action mailed August 22, 2006. A response was due on September 22, 2006. Applicants are concurrently requesting a five-month extension of time. Therefore, a response is now due February 22, 2007. Accordingly, this response is being timely filed.

The Examiner has required restriction between

1. Claims 1-12, drawn to a method of increasing expression of a molecular chaperone by an eukaryotic cell comprising treating an eukaryotic cell of a living mammalian organism that is exposed to a physiological stress with an effective amount of a chemical compound to increase the expression of a molecular chaperone by the cell with formula I;

2. Claims 13-19, drawn to a method of increasing activity of a molecular chaperone in an eukaryotic cell of a living mammalian organism that is exposed comprising treating the cell

that is exposed to a physiological stress with an effective amount of a chemical compound to increase the expression of a molecular chaperone by the cell with formula I;

3. Claims 20-24, drawn to a method of treating disease connected with the function of the chaperon system or associated with the injury of the membrane by administering compound of formula I;

4. Claim 25, drawn to a pharmaceutical composition for the treatment of cardiovascular, vascular, cerebral, allergic, etc., with compound of formula I.

Applicants hereby provisionally elect claims of Group 3 for continued examination, with traverse for the following reasons.

Applicants submit that all four groups are connected by the single inventive concept, which is that the compound of the invention ultimately induces increased activity of molecular chaperone. Group I is said to be drawn to a method of increasing expression of a molecular chaperone by a eukaryotic cell. Group II is said to be drawn to a method of increasing activity of a molecular chaperone in a eukaryotic cell. The Examiner cites Sorensen as an example that chaperones can be enhanced using a materially different compound; however, Sorensen is an article regarding recombinant protein expressed in E. coli, a prokaryote. It mentions prokaryotic chaperones as aiding folding of recombinant protein expressed in the bacteria. Sorensen does not shed any light on enhancing the expression of endogenous chaperones in a eukaryotic cell. Therefore, Applicants respectfully submit that the concept of enhancing the activity of a chaperone in a eukaryotic cell is a novel invention.

Applicants further submit that Group III, said to be drawn to a method of treating disease connected with the function of the chaperone system, and Group IV, said to be drawn to a pharmaceutical composition, should and can all be examined under a unifying concept of enhancing the activity of a chaperone in a eukaryotic cell. Group III, which consists of claims directed to method of treatment, is a simple extension of claims categorized as Group I or II. To treat a disease connected with the chaperone system, one needs to increase the activity of molecular chaperone in a eukaryotic cell. Therefore, the methods in Group III can be searched at the same time as those in Groups I and II. Further, to practice a method of increasing expression of a molecular chaperone, or increasing activity of a molecular chaperone as claimed in the

application, one needs to have a compound to which the eukaryotic cell is exposed. This compound would be the crucial component of a pharmaceutical composition of Group IV.

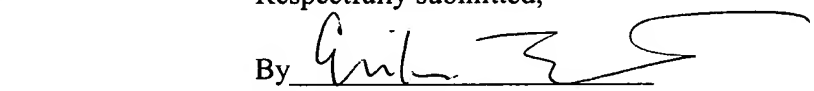
For the foregoing reasons, Applicants submit that searching for and examining all groups together is no extra burden to the Examiner than searching for and examining any one of the four groups.

Applicants also provisionally elect, for the search purpose only, compound of formula I wherein A is pyrimidine, R" is piperidine, and R^1 is hydrogen (a compound referred to as iroxanadine in the application) as species, with traverse. Applicants submit that many of the chemical species strongly share common characteristics. For example, there is no need to require an election among all alkyl moieties at R" or R^1, as many compounds that differ only by alkyl moieties share similar biological activities.

Applicants believe no additional fee is due with this response. However, if an additional fee is due, please charge our Deposit Account 06-1075, under Order No. 004049-0015 from which the undersigned is authorized to draw.

Dated: February 21, 2007

Respectfully submitted,

By 

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